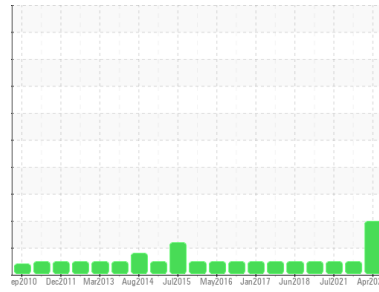




# OIL ANALYSIS REPORT

Area  
**OKLAHOMA/102/EG - MOTOR GRADER**  
 Machine Id  
**78.67 [OKLAHOMA^102^EG - MOTOR GRADER]**  
 Component  
**Right Tandem**  
 Fluid  
**MOBIL 50W (--- GAL)**

Sample Rating Trend



## DIAGNOSIS

- Recommendation**  
No corrective action is recommended at this time. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.
- Wear**  
Bearing and/or bushing wear is indicated.
- Contamination**  
There is no indication of any contamination in the oil.
- Fluid Condition**  
The oil viscosity is lower than normal. Confirm oil type.

## SAMPLE INFORMATION

| method        | limit/base  | current            | history1    | history2    |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | <b>WC0908759</b>   | WC0800845   | WC0598740   |
| Sample Date   | Client Info | <b>02 Apr 2024</b> | 14 Apr 2023 | 14 Jul 2021 |
| Machine Age   | hrs         | <b>16500</b>       | 15528       | 14240       |
| Oil Age       | hrs         | <b>2260</b>        | 1288        | 575         |
| Oil Changed   | Client Info | <b>Changed</b>     | Not Changd  | Changed     |
| Sample Status |             | <b>ABNORMAL</b>    | NORMAL      | NORMAL      |

## CONTAMINATION

| method | limit/base     | current    | history1 | history2 |
|--------|----------------|------------|----------|----------|
| Water  | WC Method >0.2 | <b>NEG</b> | NEG      | NEG      |

## WEAR METALS

| method   | limit/base           | current      | history1 | history2 |
|----------|----------------------|--------------|----------|----------|
| Iron     | ppm ASTM D5185m >425 | <b>19</b>    | 61       | 75       |
| Chromium | ppm ASTM D5185m >5   | <b>&lt;1</b> | <1       | <1       |
| Nickel   | ppm ASTM D5185m >5   | <b>0</b>     | 0        | 0        |
| Titanium | ppm ASTM D5185m      | <b>&lt;1</b> | <1       | <1       |
| Silver   | ppm ASTM D5185m      | <b>0</b>     | 0        | 0        |
| Aluminum | ppm ASTM D5185m >5   | <b>▲ 14</b>  | 2        | 0        |
| Lead     | ppm ASTM D5185m      | <b>&lt;1</b> | 0        | 0        |
| Copper   | ppm ASTM D5185m >8   | <b>▲ 88</b>  | <1       | 0        |
| Tin      | ppm ASTM D5185m      | <b>&lt;1</b> | 0        | 0        |
| Antimony | ppm ASTM D5185m >5   | <b>---</b>   | ---      | 0        |
| Vanadium | ppm ASTM D5185m      | <b>&lt;1</b> | 0        | 0        |
| Cadmium  | ppm ASTM D5185m      | <b>0</b>     | 0        | 0        |

## ADDITIVES

| method     | limit/base      | current     | history1 | history2 |
|------------|-----------------|-------------|----------|----------|
| Boron      | ppm ASTM D5185m | <b>38</b>   | 9        | 37       |
| Barium     | ppm ASTM D5185m | <b>0</b>    | 0        | 0        |
| Molybdenum | ppm ASTM D5185m | <b>1</b>    | 3        | 3        |
| Manganese  | ppm ASTM D5185m | <b>3</b>    | 1        | <1       |
| Magnesium  | ppm ASTM D5185m | <b>24</b>   | 27       | 9        |
| Calcium    | ppm ASTM D5185m | <b>4314</b> | 2954     | 3254     |
| Phosphorus | ppm ASTM D5185m | <b>1507</b> | 999      | 1241     |
| Zinc       | ppm ASTM D5185m | <b>1734</b> | 1220     | 1182     |
| Sulfur     | ppm ASTM D5185m | <b>7333</b> | 11069    | 4502     |

## CONTAMINANTS

| method    | limit/base          | current   | history1 | history2 |
|-----------|---------------------|-----------|----------|----------|
| Silicon   | ppm ASTM D5185m >50 | <b>11</b> | 8        | 10       |
| Sodium    | ppm ASTM D5185m     | <b>8</b>  | 3        | 13       |
| Potassium | ppm ASTM D5185m >20 | <b>2</b>  | 0        | 2        |

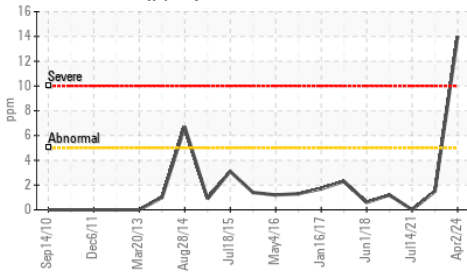
## VISUAL

| method           | limit/base           | current      | history1 | history2 |
|------------------|----------------------|--------------|----------|----------|
| White Metal      | scalar *Visual NONE  | <b>NONE</b>  | NONE     | LIGHT    |
| Yellow Metal     | scalar *Visual NONE  | <b>NONE</b>  | NONE     | NONE     |
| Precipitate      | scalar *Visual NONE  | <b>NONE</b>  | NONE     | NONE     |
| Silt             | scalar *Visual NONE  | <b>NONE</b>  | NONE     | VLITE    |
| Debris           | scalar *Visual NONE  | <b>NONE</b>  | NONE     | VLITE    |
| Sand/Dirt        | scalar *Visual NONE  | <b>NONE</b>  | NONE     | NONE     |
| Appearance       | scalar *Visual NORML | <b>NORML</b> | NORML    | NORML    |
| Odor             | scalar *Visual NORML | <b>NORML</b> | NORML    | NORML    |
| Emulsified Water | scalar *Visual >0.2  | <b>NEG</b>   | NEG      | NEG      |
| Free Water       | scalar *Visual       | <b>NEG</b>   | NEG      | NEG      |

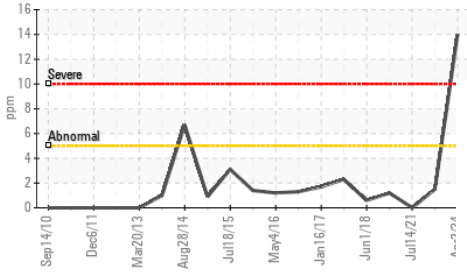


# OIL ANALYSIS REPORT

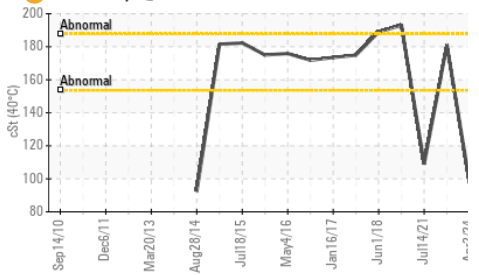
▲ Aluminum (ppm)



▲ Aluminum (ppm)



● Viscosity @ 40°C



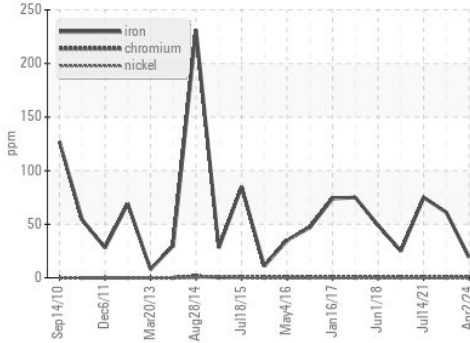
| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445  | ● 97.5  | 181      | 109      |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
|---------------|--------|------------|---------|----------|----------|

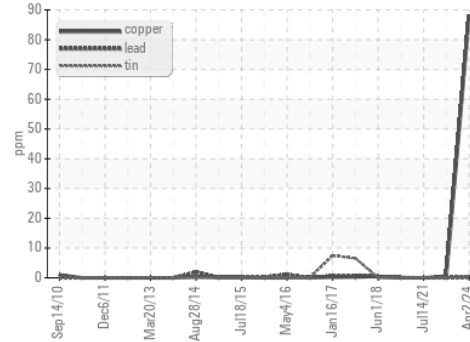
|        |  |  |          |          |          |
|--------|--|--|----------|----------|----------|
| Color  |  |  | no image | no image | no image |
| Bottom |  |  | no image | no image | no image |

## GRAPHS

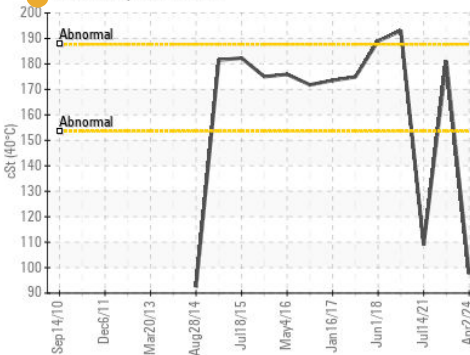
Ferrous Alloys



▲ Non-ferrous Metals



● Viscosity @ 40°C



Certificate L2367

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : WC0908759

**Lab Number** : 06141760

**Unique Number** : 10966568

**Test Package** : CONST

**Received** : 08 Apr 2024

**Tested** : 09 Apr 2024

**Diagnosed** : 10 Apr 2024 - Don Baldrige

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